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School Infrastructure Availability and Emotional Flexibility: Their Roles in Mitigating Digital Engagement Overload Among Basic Education Teachers

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Abstract

The study examined the levels of school infrastructure availability and emotional flexibility in relation to digital engagement overload among 260 basic education teachers in the Division of Valencia City, Province of Bukidnon, Philippines. It explored the relationships among these variables and identified which factors, singly or in combination, were statistically associated with teachers' digital engagement overload for the School Year 2025–2026. The analysis revealed that school infrastructure in the Division of Valencia City is frequently available, aligning with improved instructional capacity supported by technical assistance and adequate digital resources. Furthermore, teachers demonstrated high emotional flexibility, enabling them to adapt to challenges, manage stress, and sustain emotional balance amid increasing technological demands. Despite this, teachers reported high levels of digital engagement overload, characterized by prolonged technology use and continuous digital immersion. Results also indicated significant correlations among school infrastructure availability, emotional flexibility, and digital engagement overload. Teachers who experienced higher levels of digital engagement overload tended to exhibit greater emotional regulation and adaptability, suggesting possible coping mechanisms in navigating digital demands. Moreover, technical support and training, digital teaching resources, emotional regulation, management of emotional stress, and emotional adaptability were found to be significantly related to digital engagement overload. Among these, technical support and training displayed the strongest statistical association. The results affirm that these factors, both collectively and individually, correspond with teachers' digital engagement overload in the Division of Valencia City.

Keywords: Availability of technical support and training, digital teaching resources, emotion regulation, coping with emotional stress, emotional adaptability, digital engagement.

1. Introduction

In recent years, the Philippines has advanced digital technology adoption and implemented climate-resilient infrastructure to promote inclusive learning environments. Despite these gains, significant connectivity and resource gaps persist, notably in remote and underserved regions, which continue to hamper teaching effectiveness (Open Gov Asia, 2025; Navarro, 2022). Analysis by Navarro (2022) highlights persistent issues in classroom adequacy, sanitation, and ICT resources, leading to overcrowded learning spaces and strained instructional quality. While measures like distributing offline libraries, adding smart TVs, and

extending satellite-based internet have improved access, inequities remain that shape both teacher and student experiences (DepEd, 2025).

It is widely accepted that the availability of school infrastructure is a key factor in teacher well-being and instructional effectiveness. Studies show that schools well-equipped with stable internet and ample digital resources help students avoid cognitive overload and digital weariness (Barrett, 2019; OECD, 2015). Baker and McGowan (2022) argue that digital readiness in infrastructure helps teachers be more emotionally flexible, enabling them to adapt to the rapid changes in teaching that technology brings. International evaluations, such as those conducted by the Asian Development Bank (2023), indicate that the unequal distribution of infrastructure is a principal factor contributing to digital engagement overload, which directly affects teachers' psychological well-being and job satisfaction.

Simultaneously, emotional flexibility, teachers' ability to manage their emotions and adjust to new demands, becomes an essential personal asset for coping with digital engagement overload. Based on Bandura's Social Cognitive Theory (1986), this adaptation illustrates how contextual supports and personal efficacy mutually influence one another (Scholze & Hecker, 2024). The Job Demands-Resources Model further elucidates that maintaining equilibrium between job demands (constant digital immersion) and both material (school infrastructure) and human (emotional regulation) resources is crucial for sustaining teacher well-being and averting burnout (Scholze & Hecker, 2024).

Philippine research corresponds with global trends while emphasizing unique issues. Villaseñor (2024) and Magtoltol (2025) assert that scattered infrastructure and unreliable connectivity hinder teachers' digital involvement, exacerbating psychological stress. Comparative research in Eastern and Southeast Asia corroborates these findings, indicating that infrastructure improvements are insufficient without concurrent advancement of emotional resilience programs (Kataoka et al., 2024). Rivera et al. (2025) propose integrated policies that combine infrastructural investments with emotional support systems to comprehensively address the digital workload challenges faced by teachers, a sentiment reflected in public- private partnership plans in the Philippines (Open Gov Asia, 2025).

This study offers a comprehensive understanding of digital engagement overload by examining the interplay among these aspects in the Philippine setting and drawing on foreign models. The findings aim to inform policy by promoting integrated interventions that combine enhanced infrastructure with the development of emotional resources to foster teacher well-being and sustained educational achievement, both in the Philippines and internationally (Navarro, 2022; Scholze & Hecker, 2024).

Statement of the Problem

This study examined the relationship between school infrastructure availability and emotional flexibility in relation to digital engagement overload among basic education teachers in the Division of Valencia City, for the school year 2025-2026. Specifically, this study sought to answer the following questions:

1. What is the level of school infrastructure availability in basic education teachers in terms of:

    a) Availability of Digital Devices;
    b) Availability of Stable Internet Connectivity;

c) Availability of Technical Support and Training;
d) Availability of Digital Teaching Resources ?

2. What is the level of emotional flexibility among basic education teachers in terms of:

a) Emotion Regulation;
b) Emotional Adaptability;
c) Coping and emotional Stress;
d) Positive Emotional Engagement ?

3. What is the level of digital engagement overload experienced by basic education teachers in terms of:

a) Digital Overload;
b) Psychological Well-Being;
c) Coping Mechanism;
d) Engagement?

4. Is there a significant relationship between digital engagement overload of basic education teachers and;

a) school infrastructure availability; and
b) Emotional Flexibility?

5. Is there any variable, singly or in combination, that best predicts the digital engagement overload of basic education teachers?

2. Methodology

The study employed a descriptive-correlational research design to examine the levels of school infrastructure availability, emotional flexibility, and digital engagement overload among basic education teachers in the Division of Valencia City. Digital engagement overload was the dependent variable, while the independent variables were school infrastructure availability and emotional flexibility.

A descriptive-correlational design was used to examine the levels of school infrastructure availability, emotional flexibility, and digital engagement overload; meanwhile, correlational methods were applied to determine the relationships among these variables.

Multiple linear regression analysis was applied to determine whether any variable, singly or in combination, best predicted the work productivity of teachers. Regression is a statistical approach to assess the connection between a dependent and an independent variable. It helped monitor how changes in one variable influenced change in another variable or the impact of one variable on another. Regression may reveal if the association between two variables is weak, strong, or fluctuates over time.

The participants of the study consisted of two hundred sixty (260) public elementary school teachers, who were all assigned to different public schools in the Division of Valencia City. To ensure that the teachers in each school are represented, total enumeration was used. Total enumeration refers to including the entire population in the study, rather than using a sample. It aims to gather data from every individual or element within the defined population. The primary advantage of this strategy is that it provides a complete and accurate representation of

the entire population, eliminating sampling errors and ensuring that the findings can be generalized for the whole group.

Three (3) instruments were used to gather the data.

The first part focused on the availability of school infrastructure. This instrument was patterned from the study on "ICT Landscape and Digital Literacy Skills of Basic Education Teachers" (Magtoltol & Oropa 2020). This instrument comprised ten (9) items: availability of digital devices, availability of stable internet connectivity, availability of technical support and training, and availability of digital teaching resources. This instrument was pilot-tested with basic education teachers at Musuan Integrated School, Musuan, Maramag, Bukidnon, and yielded a Cronbach's alpha reliability coefficient of 0.955.

The second part focused on the emotional flexibility of basic education teachers. This instrument was patterned from the study on "Perceived Social Support and Emotion Regulation as Predictors of the Quality of Life of the Private School Teachers" (Roblico & Bolo, 2021).

The instrument comprised emotion regulation, emotional adaptability, coping with emotional stress, and positive emotional engagement, each consisting of ten (10) items. It has a Cronbach alpha reliability coefficient of 0.965.

The third part focused on the digital engagement overload of teachers. This instrument was patterned from the study on "Professional Learning, Digital Overload, Coping Mechanisms, and Student Engagement: An Empirical Investigation Based on the S-O-R Framework" (Tafesse. et. al.,2024)., with four (4) sub-variables, namely, digital overload, psychological well-being, coping mechanisms, and engagement, which consists of ten (10) items, respectively. It has a Cronbach alpha reliability coefficient of 0.937.

The researcher conducted pilot testing at Musuan Integrated School, Musuan, Maramag, Bukidnon, one of the elementary schools in the Bukidnon Division, to ensure the validity of the questionnaires. Three (3) experts also conducted content validation. As part of the ethical protocol, the researcher sent an ethics statement to all respondents in the study, including the participating schools. The respondents had ample time on the day the questionnaires were administered to complete the instruments and were encouraged to provide candid and accurate responses. It was ensured that the information they offered remained confidential and was used solely for research purposes. Upon retrieval of the questionnaires, the data were encoded, tallied, and classified according to the study's objectives. It was subjected to data analysis, discussion, and interpretation.

The following rating scale was used to understand the data better:

SCALE	RANGE	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
5	4.51-5.00	Always (A)	Consistently Available (CA)
4	3.51-4.50	Often (O)	Frequently Available (FA)
3	2.51-3.51	Sometimes (S)	Occasionally Available (OA)
2	1.51-2.50	Rarely (R)	Seldom Available (SA)
1	1.00-1.50	Never (N)	Not Available (NA)

SCALE	RANGE	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
5	4.51-5.00	Always (A)	Very Highly Flexible (VHF)
4	3.51-4.50	Often (O)	Highly Flexible (HF)
3	2.51-3.51	Sometimes (S)	Moderately Flexible (MF)
2	1.51-2.50	Rarely (R)	Less Flexible (LF)
1	1.00-1.50	Never (N)	Not Flexible (NF)

SCALE	RANGE	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
5	4.51-5.00	Always (A)	Extremely High Digital Engagement Overload (EHDEO)
4	3.51-4.50	Often (O)	High Digital Engagement Overload (HDEO)
3	2.51-3.51	Sometimes (S)	Moderate Digital Engagement Overload (MDEO)
2	1.51-2.50	Rarely (R)	Mild Digital Engagement Overload (MDEO)
1	1.00-1.50	Never (N)	No Digital Engagement Overload (NDEO)

3. Results and Discussions

This part presents the comprehensive analysis and interpretation of gathered data, as well as the support and implications of the study's findings. The order of presentation follows the arrangement of the problems identified in the study.

3.1 School Infrastructure Availability

Table 1 presents the school infrastructure availability in the Division of Valencia City. The average mean score of 3.76 reveals that the Division of Valencia City's educational infrastructure is "frequently available." The four (4) sub-variables are: school infrastructure availability (4.29), availability of technical support and training (4.29), availability of digital teaching resources (4.23), availability of digital devices (3.31), and availability of a stable internet connection (3.19).

Table 1. School Infrastructure Availability in the Division of Valencia City.

INDICATORS	**Mean**	**Descriptive Rating**	**Qualitative Interpretation**
Availability of Technical Support and Training	4.29	Often	Frequently Available
Availability of Digital Teaching Resources	4.23	Often	Frequently Available
Availability of Digital Devices	3.31	Sometimes	Occasionally Available
Availability of Stable Internet Connection	3.19	Sometimes	Occasionally Available
OVERALL MEAN	3.76	Often	Frequently Available

LEGEND:

Range	Descriptive Rating	Qualitative Interpretation
4.51-5.00	Always	Consistently Available (CA)

3.51-4.50	Often	Frequently Available (FA)
2.51-3.50	Sometimes	Occasionally Available (OA)
1.51-2.50	Rarely	Seldom Available (SA)
1.00-1.50	Never	Not Available (NA)

It shows that the school infrastructure is generally supportive but not always consistent. However, differences in indicators show that not all teachers have the same access to technology support and connectivity. This result might affect both their emotional flexibility and their digital engagement overload. There is a lack of connectivity consistency, indicating an imbalance in the infrastructure and directly affecting emotional regulation and adaptive capacity. Studies suggest that comprehensive, reliable infrastructure significantly enhances teacher performance and morale, whereas inadequacies lead to frustration and digital fatigue (Riniati et. al., 2023; Villaseñor,2024).

School infrastructure serves as a physical and psychological framework for effective learning and emotional stability. Research indicates that access to functional learning environments, ICT laboratories, and modern digital tools enhances teachers' professional engagement and mitigates emotional fatigue. Teachers who work in well-equipped settings say they are happier in their jobs and better able to adapt to workplace changes and technological advances (Barrett et. al., 2019; Muweesi et. al., 2025). Digital technology has altered the character and extent of education. Technological advances that are both versatile and disruptive, like smart gadgets, the Internet of Things, artificial intelligence, augmented reality, virtual reality, blockchain, and software applications, have created new ways to improve teaching and learning (Gaol & Prasolova-Forland,2022; OECD, 2021).

3.2 Emotional Flexibility

Table 2 summarizes the emotional flexibility of basic education teachers in four (4) major areas. The results show that teachers in the Division of Valencia City have a high level of emotional flexibility, with an overall mean score of 4.36.

Table 2. Emotional Flexibility of Basic Education Teachers in the Division of Valencia City

INDICATORS	Mean	Descriptive Rating	Qualitative Interpretation
Emotion Regulation	4.55	Always	Very Highly Flexible
Coping with Emotional Stress	4.36	Often	Highly Flexible
Emotional Adaptability	4.34	Often	Highly Flexible
Positive Emotional Engagement	4.18	Often	Highly Flexible
OVERALL MEAN	4.36	Often	Highly Flexible

LEGEND:

Range	Descriptive Rating	Qualitative Interpretation
4.51-5.00	Always	Very Highly Flexible (VHF)
3.51-4.50	Often	Highly Flexible (HF)
2.51-3.50	Sometimes	Moderately Flexible (MF)
1.51-2.50	Rarely	Less Flexible (LF)
1.00-1.50	Never	Not Flexible (NF)

The high mean scores in emotion regulation (4.55), coping with emotional stress (4.36), emotional adaptability (4.34), and positive emotional engagement (4.18) indicate that basic education teachers in the Division of Valencia City are very good at handling their own emotions. These results suggest that teachers can sustain composure and emotional equilibrium in demanding professional settings. High emotional regulation means that teachers in basic education can deliberately adjust their responses to pressure, preventing unpleasant feelings from interfering with their teaching and interactions with learners. Their strong coping and adaptation skills demonstrate resilience the ability to bounce back and make positive changes when faced with heavy workloads, digital demands, or classroom disruptions (Maisog, 2023).

The results are consistent with recent studies indicating that emotional flexibility protects teachers against digital engagement overload, technostress, and burnout. Teachers also have advanced emotional skills, which help them balance empathy, self-control, and adaptability in the face of the challenges of digital teaching. This adaptability allows teachers to cope with digital pressures, such as always being connected, multitasking, and excessive information, thereby maintaining both their mental health and the quality of their teaching (Pipuš, 2025).

3.3 Digital Engagement Overload

Table 3 shows how basic education teachers' digital engagement overload affects with the four (4) sub-variables: digital overload, coping mechanism, engagement, and psychological well-being. The basic education teachers in the Division of Valencia City had a high level of digital engagement overload, with an average mean score of 4.29. The results show that basic education teachers are highly immersed in technology, spending significant time on tasks that involve it, such as creating online materials, communicating through digital platforms, and meeting academic needs outside regular working hours.

Table 3. Digital Engagement Overload of Basic Education Teachers in the Division of Valencia City

INDICATORS	Mean	Descriptive Rating	Qualitative Interpretation
Digital Overload	4.62	Always	Extremely High Digital Engagement Overload
Coping Mechanism	4.19	Often	High Digital Engagement Overload
Engagement	4.17	Often	High Digital Engagement Overload
Psychological Well-Being	4.16	Often	High Digital Engagement Overload
OVERALL MEAN	4.29	Often	High Digital Engagement Overload

LEGEND:

Range	Descriptive Rating	Qualitative Interpretation
4.51-5.00	Always	Extremely High Digital Engagement Overload (EHDEO)
3.51-4.50	Often	High Digital Engagement Overload (HDEO)
2.51-3.50	Sometimes	Moderate Digital Engagement Overload (MDEO)
1.51-2.50	Rarely	Mild Digital Engagement Overload (MDEO)
1.00-1.50	Never	No Digital Engagement Overload (NDEO)

The sub-variable digital overload received the highest sub-mean score of 4.62, indicating that basic education teachers face digital pressures beyond their cognitive and emotional capacities to manage effectively. This score shows that teachers often feel overwhelmed by technology, as they must conduct online lessons, communicate with students, report on their work regularly, and handle other associated tasks (Buda,2024). On the other hand, psychological well-being earned the lowest sub-mean score of 4.16. This data shows that, even though teachers are dedicated and flexible, their emotional equilibrium and mental strength are getting harder to maintain. The difference between digital overload (4.62) and psychological well-being (4.16) shows a key theoretical pattern as digital demands grow, mental health tends to worsen. This mismatch indicates that, although teachers are deeply involved in digital work settings, their well-being is compromised due to persistent technostress (Araoz et. al.,2023].

The research suggested that although teachers are deeply involved in digital work environments that are essential to contemporary education, this involvement adversely affects their psychological well-being. Digital overload over time can lead to burnout, reduced job satisfaction, and problems with emotional functioning. Consequently, it is imperative to establish policies and support systems that reconcile digital demands with measures to safeguard and improve teachers' mental health, including workload management, digital limits, and stress-coping therapies (Abun et. al.,2025).

3.4 Correlation Analysis of School Infrastructure Availability and Emotional Flexibility on the Digital Engagement Overload of Basic Education Teachers

The correlation analysis in Table 4 provides detailed information on how the availability of school infrastructure and emotional flexibility are related to digital engagement overload among basic education teachers in the Division of Valencia City. The correlation coefficient (r-value) and probability value (p-value) for each variable are provided, indicating the strength and significance of their association with digital engagement overload.

Table 4 Correlation Analysis of School Infrastructure Availability and Emotional Flexibility on the Digital Engagement Overload of Basic Education Teachers

Independent Variables Correlated with the Digital Engagement overload of Basic Education Teachers	Correlation Coefficient (r)	p-Value
School Infrastructure Availability	-0.020	0.749
Availability of Digital Devices	-0.010	0.874
Availability of Stable Internet Connection	-0.014	0.816
Availability of Technical Support and Training	0.694	0.000**
Availability of Digital Teaching Resources	0.613	0.000**
Emotional Flexibility	0.066	0.285
Emotion Regulation	0.368	0.000**
Emotional Adaptability	0.441	0.000**
Coping and Emotional Stress	0.312	0.000**
Positive Emotional Engagement	0. 062	0.322

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

The availability of school infrastructure (r = -0.020, p = 0.749) and certain factors, including the availability of digital devices (r = -0.010, p = 0.874) and a stable internet connection (r = -

0.014, p = 0.816), exhibit negligible, statistically insignificant negative correlations with digital engagement overload. Teachers may still feel overwhelmed, even with the right tools, if they have too many digital chores or don't handle them well. In the same way, just having a stable internet connection doesn't help teachers feel less overwhelmed by digital chores. This result suggests that the quality of the connection does not solely determine the quality of digital tasks but is also more important in overload situations. The outcome indicates that the mere presence or absence of these infrastructure components does not immediately mitigate or exacerbate digital engagement overload (Barrett, 2019; Yangambi,2023).

Technical support and training (r = 0.694, p = 0.000) and digital teaching resources (r = 0.613, p = 0.000) are strongly linked to digital engagement overload. These data suggest that while these resources make it easier to access and use, they may also increase demands on digital engagement, leading to digital engagement overload. The findings are consistent with complexity theory, which posits that resource abundance can elevate expectations and task volume, so unwittingly intensifying stress and digital burden.

The correlation analysis results between the availability of school infrastructure and the digital engagement overload of basic education teachers in the Division of Valencia City indicate that infrastructure alone does not protect teachers from digital overload. The quality and use of resources, as well as the support structures that accompany them, affect it. Adequate technical assistance and resource availability are anticipated to augment workload by broadening digital task requirements, necessitating teachers to interact more extensively with technology and to address varied digital responsibilities (Barrett, 2019; Fan & Liu, 2022).

Conversely, Emotional flexibility (r = 0.066, p = 0.285) showed no significant correlation with digital engagement overload. Nonetheless, the subcomponents of emotion regulation (r = 0.368, p = 0.000), emotional adaptability (r = 0.441, p = 0.000), and coping with emotional stress (r = 0.312, p = 0.000) exhibit substantial associations. This outcome suggests that teachers experiencing elevated digital engagement overload may cultivate or depend on enhanced emotional control and adaptability as coping mechanisms (Fan & Liu, 2022; Kariou,2021).

The pronounced associations between emotional regulation-related facets and digital overload suggest a dual-faceted phenomenon: in settings of elevated overload, educators may activate or enhance their emotional flexibility to cope with stress. Emotional regulation and adaptability are essential resilience factors that allow teachers to meet high digital engagement expectations without experiencing burnout. However, this requires ongoing psychological costs and effort (Fan & Liu, 2022; Kariou,2021; Brigente & Paglinawan, 2025).

The data indicate intricate interactions: enhanced infrastructure support may result in increased digital engagement overload (Harel et. al., 2025). Infrastructure makes it easier for teachers to teach digitally, but it also makes their jobs harder and more stressful; therefore, they need strong emotional regulation skills to handle it. The outcome underscores the necessity for comprehensive treatments that combined technology management with emotional well-being support to enhance teacher efficacy and health in digital educational settings (Harel et. al., 2025; Fan & Liu, 2022; Kariou,2021).

3.5 Regression Analysis

Table 5 presents the data from the stepwise regression analysis, which identifies the significant predictors of digital engagement overload among basic education teachers. In this study utilizing the linear regression approach, with a stepwise method and adhering to data clearing procedures, it was found that the digital engagement overload of basic education teachers was significantly impacted by five (5) variables: availability of technical support and training (β=0.582, t=10.187, p=0.000), availability of digital teaching resources (β=0.123, t=2.079, p=0.039), emotion regulation (β=0.177, t=3.295, p=0.001), coping with emotional stress (β=0.141, t=2.965, p=0.003), and emotional adaptability (β=0.133, t=2.241, p=0.026).

Table 5. Regression Analysis of School Infrastructure Availability and Emotional Flexibility on the Digital Engagement Overload of Basic Education Teachers

INDICATORS	**Unstandardized Coefficients**		**Standardized Coefficients**	**t-value**	**Sig.**
	Beta	Std. Error	Beta		
(Constant)	0.261	0.232		1.125	0.262
School Infrastructure Availability					
Availability of Technical Support and Training	0.429	0.042	0.582	10.187	0.000
Availability of Digital Teaching Resources	0.102	0.049	0.123	2.079	0.039
Emotional Flexibility					
Emotion Regulation	0.157	0.048	0.177	3.295	0.001
Coping with Emotional Stress	0.145	0.049	0.141	2.965	0.003
Emotional Adaptability	0.092	0.041	0.133	2.241	0.026
R = 0.804	$R^2 = 0.647$		F = 93.195	Prob. = 0.000	

*Dependent Variable: digital engagement overload of basic education teachers

The findings show that when technical support and training are available, digital engagement overload increases. This finding may indicate that, whereas support and training facilitate greater digital involvement, they may also lead to heightened demands and potential overload. Having more digital resources makes digital engagement overload a little worse, since higher expectations for how well digital resources are used in education mean greater pressure to use them effectively. Additionally, for teachers' emotional flexibility, those who are more adept at managing their emotions encounter greater digital engagement overload. This outcome may indicate that individuals who effectively regulate their emotions are more inclined to undertake additional digital tasks, thereby increasing their risk of overload.

The result F = 93.195, Prob. = 0.000 also indicates that the total regression model is statistically significant, suggesting that the predictors collectively strongly predict teachers' digital engagement overload. The availability of technical help and training had the largest standardized coefficient (β = 0.582), indicating it is the strongest predictor in the model. A one-unit increase in the availability of technical support and training is associated with a 0.429-unit rise in digital engagement overload.

The regression analysis showed that the coefficient of 0.804 indicates a strong association between the predictors (availability of technical support and training, availability of digital teaching resources, emotion regulation, coping with emotional stress, and emotional adaptability) and the dependent variable (digital engagement overload). The coefficient of determination ($r^2 = 0.647$) indicates that roughly 64.7% of the variance in digital engagement overload among basic education teachers is elucidated by the collective influences of the predictors (availability of technical support and training, availability of digital teaching resources, emotion regulation, coping with emotional stress, and emotional adaptability). Nevertheless, 35.3% of the variance remains unaccounted for, suggesting the presence of other factors influencing digital engagement overload.

Furthermore, the availability of technical support and training (0.429) and emotion regulation (0.157) are the two elements with the greatest effect on digital engagement overload among basic education teachers. School infrastructure and emotional flexibility are intertwined in shaping teachers' experiences with digital engagement. Emotionally flexible teachers may be more adaptable and open to using digital technologies, but they could burn out or become overwhelmed if they don't get the right help. Infrastructure is insufficient; emotional and psychological support are essential for any digital revolution in educational institutions.

Technical support, availability of digital resources, and emotional flexibility are predictive of overload risks in educational settings. This supports the regression findings, which indicate that emotional regulation is essential, influencing both positive engagement and the risk of burnout, while infrastructure and training serve as dual factors that enhance both engagement and expectations (Yang et. al., 2024; Harel et. al., 2025; Thomson et. al., 2018). Teachers are less likely to get overwhelmed by technology when they have access to technical help and regular training. This is because they feel better prepared to use new digital platforms, making adoption easier and less stressful (Khlaif et. al., 2022; Slagg, 2023).

However, emotion regulation, coping with emotional stress, and emotional adaptability are particularly effective in alleviating digital engagement overload among basic education teachers. Teachers who can adjust their emotional responses to situations might significantly reduce the stress and burnout associated with technology use (Hilger et. al., 2025). A study by Harel et. al. (2025) shows that teachers with greater regulatory flexibility experience lower levels of burnout, even under elevated stress.

Moreover, Zivi (2025) emphasized that emotional adaptability, the capacity to respond constructively to digital work obstacles and to modify one's emotional response, acts as a protective factor against technostress and digital overload in educational settings. These studies collectively indicate that integrating emotion regulation, stress management, and adaptation not only helps teachers preserve their mental health but also enhances their resilience and professional efficacy in digital contexts (Qiu et. al., 2025).

4. Conclusions

School infrastructure in the Division of Valencia City is generally supportive, with frequent availability associated with enhanced instructional capacity, driven by strong technical support and abundant digital resources. However, variations in device availability and internet connectivity reveal persistent inequities that may correspond with reduced emotional flexibility and heightened digital engagement overload among teachers.

Basic education teachers in the Division of Valencia City demonstrate a high level of emotional flexibility, enabling them to adapt effectively to challenges, manage stress, and maintain emotional balance amid rising digital workloads and continuous technological changes.

Teachers in the Division of Valencia City exhibit a high level of digital engagement overload, reflected in continuous digital immersion and sustained technology-mediated workloads. Their extensive engagement with digital tools often aligns with elevated levels of technostress and fatigue. This pattern suggests an imbalance in which strong digital participation coexists with reduced psychological well-being, highlighting the need for targeted strategies to manage digital workloads better and sustain teachers' overall professional satisfaction and mental health.

A statistically significant relationship exists among school infrastructure availability, emotional flexibility, and digital engagement overload among basic education teachers. The null hypothesis is rejected, supporting the conclusion that school infrastructure availability and emotional flexibility are significantly correlated with digital engagement overload among teachers in the Division of Valencia City.

Multiple factors, including the availability of technical support and training, access to digital teaching resources, emotion regulation capacity, and emotional adaptability, show significant associations with digital engagement overload among basic education teachers in the Division of Valencia City. Among these variables, technical support and training demonstrate the strongest statistical relationship. Consequently, the null hypothesis is rejected, confirming that these factors, individually and collectively, exhibit significant correlations with teachers' levels of digital engagement overload.

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